THE EFFECTIVENESS OF QUESTIONING TECHNIQUE ON STUDENTS IN THE SUBJECT OF BSC 364 INTERNATIONAL BUSINESS, SRIPATUM INTERNATIONAL COLLEGE

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ABSTRACT

The aim of this classroom action research is to investigate the effectiveness of questioning technique on students in the subject of BSC 364 International Marketing. The population of this study was seven students of International Program who took the subject for semester 2, 2015 academic year. The pre- and post-tests were administered for assessing the effectiveness of the questioning technique. The analysis techniques used were the growth score and the relative gain score. The growth score was the result of post- minuses pre-test scores, whereas the relative gain scores showed the percentage of development level where the 'hit ceiling effect' was taken into account.

The results of this study disclosed significant information regarding the improvement of teaching technique beyond expectation. Besides the remarkable improvement shown by high relative gain scores, the effectiveness of questioning techniques was expressed through the classroom climate. With the questioning technique, students had higher attention, more focus and showed greater engagement in the class. The interaction between lecturer and students and among students directly promoted the learning outcome. The finding revealed that the use of pre-and post-tests were not only for assessing student performance, but it was a powerful tool to promote students' engagement and enhance a students' critical thinking and learning process.

KEYWORDS : Classroom questioning, Socratic questioning, Learning outcome, Growth score, Relative gain score.

1. BACKGROUND AND STATEMENT OF THE PROBLEM

Sripatum International College (SIC) has been established for more than a decade. Recently the nationality of students is mixed mainly between Thais and Chineses at 50 and 40 percent respectively. Even though SIC provides an international atmosphere, students like to form a group with people who have the same nationality background. International students mainly rent accommodation near the university. Many of them stay in dormitories provided by SPU. Some share the room for their convenience, feeling of security, and reducing expenses. Not only for the living style, but they have similar lifestyle due to the same background. Not surprisingly, they always hang out and speak their own language. These situations are similar to Thais student taking International program. In addition, Thais students who have Chinese background are mostly good at speaking Chinese. When Chinese and Thais students join the same class, Thais with Chinese-background students feel more comfortable to communicate in Chinese rather than English whereas other Thais either stay quiet or speak Thais among their group. This discourages the chance to improve and learn English. Consequently, students do not have enough confident to participate in class discussion which in turn limits their ability to learn.

BSC364 International Marketing is one of the core subjects of the Bachelor of Arts in International Business Communication. This subject is in the third-year study plan which implies that students should have learnt other fundamental subjects prior to the study of BSC364 International Marketing. Prior knowledge from the fundamental subjects is an essential part of International Marketing. It is suspected that students have often been overwhelmed with a tank of previous knowledge; their knowledge is scattered and unorganized. It is also possible that students have a fade memory of these subjects. These lead to a difficulty to understand the concept of International Marketing which needs those knowledge as a foundation.

To improve the learning outcome, lecturers attempt to promote student's preparation for class by requesting their students to complete assigned reading prior to the subsequent lecture. The expectation is to have students gaining and being familiar with the concept that leads to a better understanding in the class and enhances students' participation and discussion. This tactic is well recommended by research and demonstrates the greater achievement (Mcdougall & Granby, 1996). Unfortunately, the tactic does not ensure adequate levels of student preparation which in turn means the lecturer's expectation is unlikely to be fulfilled. Consequently, often only students who completed the assigned-reading volunteer to answer when a lecturer asks questions in class, whereas those who didn't complete the assigned reading often avoid eye contact and class discussion.

Lecture-based learning is commonly applied in teaching higher education. A substantial number of relevant studies support the use of the traditional method; lecturing, as it directly contributes to student learning process (Allen, 2007; Price & Nelson, 20013; Etemadzadeh, Seifi & Far, 2013). Nevertheless, the pure lecture-based learning approach is in doubt of its effectiveness (Mckeachie & Syinicki 2014). This approach is marked as a banking method in which students passively sit in the class, deposit their knowledge from lecturing, and withdraw this knowledge during examination (Sharan, 1994). Lecture-based learning has several advantages

including the disseminated information quickly to a large group of students, the provision of conceptual framework for student's further reading, and the effectiveness in improving student learning as they can 'bank' the content information received during the lecture (Boyce, 2004).

Despite its perceived benefits, it has been criticized as a passive activity. Students lack the interaction between the lecturer and other classmates while being passive listeners (Allen, 2007). The passive activity does not support students to develop essential skills they need for the future professional careers such as critical thinking, co-operative learning, communication, and self-expression (Allen, 2007; Owens & Wex, 2010). Moreover, when students fail to catch up lecturing, they would be easily distracted by playing with their smart phones instead of asking the lecturer for catching up where they lost. This results in less attention and engagement to the remaining lecture.

These problems; fade memories of prior knowledge, the limitation of English proficiency, and lost attention and engagement, were what the researcher encountered on the first few classes of teaching BSC 364 International Marketing.

Questioning technique is one of the constructivist approaches of learning. It refers to question management for students that invites them to express their understanding (Sardareh, Saad, Othman & Che Me, 2014). It is expected to provide solutions by motivating students' engagement, filling up the fade memories of prior knowledge, and improving the English skills (Adedoyin, 2010). Questioning technique turns the passive activity resulting from the lecture-based learning into active activity that fulfils a fruitful effectiveness of students in studying (Cotton, 2001) of BSC 364 International Marketing.

2. PURPOSE OF THE STUDY

The purpose of the present study is to investigate the potential of an alternative instructional tactic namely 'questioning technique'. It is expected that the questioning technique demonstrates the improvement of students' learning and the quality of undergraduate instruction.

3. CONCEPTUAL FRAMEWORK

Pre-Test → Questioning Technique → Post-Test
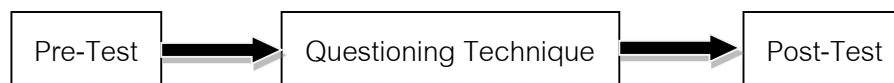
4. RESEARCH METHODOLOGY

4.1 Research paradigm and research design

The positivist paradigm is adopted and the deductive approach is applied to gathering data, measuring, and testing hypothesis (Collis & Hussey, 2013). This study is an experimental research. To be exact, it is a pretest-

posttest design where participants are tested before and after the experimental manipulation and it has a quasi-experimental nature which means participants are not randomly assigned.

4.2. Research population

The population of this research was the 7 students who enrolled in BSC 364 International Marketing in Semester 2, 2015 academic year, Sripatum International College.

4.3. Variables of study

Independent Variable: Questioning technique

Dependent Variable: The effectiveness of student learning outcome as a result of the questioning technique

4.4. Research instruments

A pre-test was used as the first instrument of this study. The aim of the pre-test was to determine students' background knowledge or existing knowledge on the course topic prior to the teaching. In the pre-test, the students were given a test consisting of 10 True/Fault questions and 20 multiple-choice questions with 5 options; A, B, C, D and E. Students were expected to complete the test within 30 minutes. The set of questions were selected from the test bank of Global Marketing, 8th Edition, on Chapter 11 'Pricing decisions in Global Marketing' provided by Pearson Education Limited 2015; ensuring the validity and reliability. Furthermore, the content of instrument was also validated by Dr. Yuanfeng Cai, a full-time lecturer who has expertise in marketing field. The selected questions reflect cognitive process based on the revised Bloom's taxonomy including remember, understand, and apply to serve the aim.

A post-test was used as the second instrument. In fact, the post-test was the same set as the pre-test one. This was because the aim of this study is to investigate the effectiveness of questioning techniques used in the classroom. The post-test was administered directly after the lecture was done in order to check the impact of teaching techniques.

4.5. Procedure of the study and teaching process

As the literature suggests that lecture-based learning has some drawbacks in terms of its passive nature, questioning technique with a combination of Socratic questioning (Etemadzadeh et al., 2012) and Bloom's Taxonomy Theory (Bloom, 1956) was used to turn the passive into active ones. The level of questions asked influences the level of thinking skill. The low-level questions were asked to promote ground knowledge of the concepts and principles, whereas the high-level questions were designed to promote critical thinking skill (Duron, Limbach & Waugh, 2006). More specifically, the low-level questions were asked at the end of every sub-topic. Later, at the end of the lecture, high-level questions were asked to enhance cognitive process such as self-reflection and revision.

The chapter 10 'Price Decisions in Global Marketing' was chosen not only because it is one of the important topics in the International Marketing, but also pricing is one of the four marketing mix which is a core concept of marketing principle.

To investigate the effectiveness of questioning technique, the teaching strategy needed to be well-planned. The researcher; who is the lecturer of this subject, made altogether 57 PowerPoint presentation slides that broke into 7 topics, teaching on the 22nd March 2016 for week 10th. Most of the main topics have sub-topics depending on the content. The sequence of each slide is well designed. The first slide was the learning objectives, followed by the second slide that showed topics going to be lectured; this will be called a **'main topic page'** onwards. To introduce each topic, the main topic page will be presented once again, but this time it will be with the bold and the highlight in red for identifying what of the topics going to pursue; called an **'introducing topic page'**. The following of the 'introducing topic page'; a **'sub-topic page'** will show the topic going to pursue with its sub topics. The purpose of the sub-topics page was to inform students of the scope of the topic before the lecture was carried on.

Generally, the classroom questions were commenced after each topic was lectured. However, it was an intended strategy for making the questions session flexible upon the content. Some sub-topic was be supplied with questions for a better understanding and review.

During the questioning session, the question was distributed to every student. The socratic questions were applied to promote a deeper thought and used as a throwing ball from one student to another. Examples of questions were: 'Why do you say that?, Can/Did anyone see this in another way?, Why was that question important?, Can you elaborate your reasons?, Would you extend the answer from what 'A' has said? and Does anyone want to add up what 'B' has said? Note that students were names A, B, C, D, E, F, and G for anonymity. The teaching was run on till the end. Then the high-level questions were presented and discussed at the end of the lecture.

With the use of four teaching strategies; 1) questioning techniques responding to the desired purpose (low- and high levels) based on the revised Bloom's taxonomy, 2) the use of the socratic questions, 3) the use of the teaching technique (a well-planned PowerPoint presentation) and 4) the use of teaching tips as suggested by Mckeachie and Syinicki (2014), the effectiveness of learning was expected.

4.6. Data analysis strategy

To analyse data, it was designed into 2 steps. Firstly, the descriptive analysis was used to show the basic characteristics of the data in the study. As the observed data do not come from a random sample but instead represent a complete set of population, there is no sampling error. Likewise, inferential statistic is not applicable. All of the frequencies are fixed since the entire population is observed.

The second step was to measure the growth score. The growth score is defined as the score resulting from the post-test minuses the pre-test scores. However, the growth score does not reflect the real growth as it

does not take magnitude of pre- and post-test into account. In other words, how to interpret when two students had the same growth scores whereas one got low score and another got high score from the pre-tests. Do they have the same development of performance?

To achieve the objective, the relative gain score is used for accompany of the growth score. The relative gain score is measured by the following equation adapted from Archwamety and Tangdhanakanond (2015):

$$RGS = ((Y\text{-}X)) / (F - X)) \times 100$$

When RGS is the relative gain score, Y is the post-test score, X is the pre-test score, F is the total score.

There are several benefits of the relative gain score over the growth score. First is the effect of 'hit-ceiling score' where the score of the pre-test was very high and then growth score was less than those who received low score from the pre-test. Second is when students had the same growth score whereas one had high and the other had low score from the pre-test. In both cases, the relative gain score helps to identify the development level in terms of percentage and this helps to clarify the real growth of the development.

5. RESULTS OF ANALYSIS

5.1. Descriptive analysis

The demographic of the population is based on gender; 3 males accounted for 42.8% and 4 females accounted for 57.2%.

5.2. Growth scores and relative gain scores

The scores of both pre- and post-test were informed to the students. The results of scores are shown in Table 1.

Table 1: The pre-test, post-test, growth and relative gain scores

Student	Pre-test score (20)	Post-test score (20)	Growth score[1]	Relative gain score[2]	Perceived English competency[3]
A	6	14	8	**57%**	Excellent
B	5	16	11	**73%**	Excellent
C	9	15	6	**55%**	Good
D	6	9	3	21%	Good
E	8	13	5	42%	Fair
F	7	10	3	23%	Poor
G	7	11	4	31%	Poor
Average	**6.86**	**12.57**	**5.71**	**43.48%**	

Note: 1) Growth score is calculated by the post-test minuses pre-test scores.

2) The relative gain score is calculated by the growth score divided by the result of total score minuses pre-test score. The total score is 20.

3) The perceived English competency is based on the researcher's judgement only.

As shown in Table 1, the relative gain scores demonstrated the improvement level of the students. Three of seven students' scores were excellent with the scores 55% and above. Two of seven students' scores were good with the scores of 31% and 42%. The last two students' scores were fair with the scores of 21% and 23%.

Even though the relative gain scores demonstrated the effectiveness of questioning technique, the post-test scores of all students were less than researcher's expectation. Therefore, corrective action was made straightaway aiming to improve the students' performance. Despite the fact that the aim of this research is to investigate 'the effectiveness of questioning technique on improving students' learning outcome', to find a greater solution for students' improvement on learning outcome cannot be ignored. The corrective action will be discussed in part 6.

6. DISCUSSION, LIMITATION AND RECOMMENDATION FOR FUTURE RESEARCH

In terms of technique applications including classroom questions and socratic questions, students showed considerably and positively well-over expected response. That was, the questioning techniques obviously drew attention of the students. Students had high engagement and enjoyed class discussions and questioning sessions. The enjoyment was expressed by their actions such as they liked to raise hands to answer the questions. They liked when the lecturer asked their classmates to show opinion regarding the reasons of why they did or did not agree with their friends' answer. During the time when their friends tried to show opinion, they would tease each other and laugh. They even filmed, for example, when D was trying to explain his thoughts, and later they sent the clip to BSC364 Line group for teasing D. Clearly, the whole class turned from passive into lively and vividly active climate with the use of questioning technique. This is inline with Caram and Davis (2005) who found that the lecturer has influence on student motivation and the use of questions invites curiosity that keep students engaged.

One of the other impressive responds was that when one misunderstood the concept and offered incorrect answer, the other would try to explain the concepts related to the question to that person. They tried to help each other and had fun with their support. The interactions between students and lecturer and among students were extraordinary amplified. While the relative gain scores were tangible evidence of the effectiveness of questioning technique on student's learning outcome, students' engagement and lively classroom climate were intangible evidence of successful teaching method. This is in line with Duron et al. (2006) who state that the more importantly of enjoyable class is that it causes students to think critically.

Although the relative gain scores and lively classroom climate were deemed satisfactory, the lecturer's expectation was higher. The researcher doubted that the English proficiency was another cause that made the post-test scores not high enough. Regardless the causes of why the post-test scores were not as high as expected, the corrective action was made to fill the rooms. It started with the lecturer asked the students if they were interested in reviewing the test and they said they loved to. Then, the questions were asked from the first question of True/Fault part to the last question of multiply-choice part. During the session, the same questioning technique was applied, Socratic questioning in particular. At this time, more constructive argument occurred. Students shared their points of view on each answer whether they were right or wrong. The great benefit here was that the lecturer had a better understanding at what point students got stuck, misunderstood, and misinterpreted the concepts and applications. This was a golden time for lecturer to diagnose, fix, and make the right from wrong. Also, this was a golden time for students to clarify their understanding, which in turn, improved the effectiveness of learning outcome.

None of the research is perfect. The limitation of this study is the size of the population which might lead to the generalizability of the research. However, the benefits of its size offset the limitation significantly. Firstly, it allows the use of questioning technique exceptionally. What cannot do in the big class is to distribute questions throughout every single student, but it does in a small group. Secondly, each question needs to allow waiting time for students to answer. When the initial response is unsatisfactory or incomplete, redirecting the question and probing for more complete responses is needed to increase the quality of responses. These activities take time and it does not have enough time for big class to practice in the same manner. Next, within the small class, the true lively classroom climate enhances students' engagement obviously. In additional, the close attention that lecturer provides to each student cannot happen in a big class. Last, the corrective action for a certain circumstance is hard to achieve if the class is too big. More importantly, it turns out that the corrective action aiming to improve students' learning outcome was the highlight of successful questioning technique used in this current study.

Recommendations for future research are the following:

1. Where the number of students are allowed, it is highly recommended for the researcher to test the effectiveness of questioning technique with at least 2 groups; one with a pure lecture-based teaching method and another with a combination of classroom and socratic questioning techniques. Then the results can be compared.

2. The qualitative method should be integrated to the study. The satisfaction of students should be investigated. To interview students' perceived usefulness of questioning technique will provide a rich interpretation in a more holistic picture.

REFERENCES

Adedoyin, O. (2010). An investigation of the effects of teachers' classroom questions on the achievements of students in mathematics: Case study of Botswana Community Junior Secondary Schools. *European Journal of Educational Studies*, *2*(3). 23-43

Allen, V. (2007). A critical reflection on the methodology of teaching law to non-law students. *Web Journal of Current Legal Issues*, *4*, 1360-1326.

Archwamety, T., & Tangdhanakanond, K. (2015). Equalizing Gain Scores: Relative Gain Score vs. Cumulative Relative Gain Score. วารสาร วิธี วิทยาการ วิจัย ,Journal of Research Methodology: JRM), 20(1), 1-22.

Bloom's Taxonomy "Revised" Key Words, Model Questions, & Instructional. (2005). https://www.uni.edu/coe/sites/default/files/wysiwyg/BloomRevisedTaxonomy.pdf

Boyce, G. (2004). Critical accounting education: teaching and learning outside the circle. *Critical perspectives on Accounting*, *15*(4), 565-586.

Caram, C. A., & Davis, P. B. (2005). Inviting student engagement with questioning. Kappa Delta Pi Record, 42(1), 19-23.

Collis, J., & Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*. Palgrave Macmillan.

Cotton, K. (2001). Classroom questioning. North West Regional Educational Laboratory.

Duron, R., Limbach, B., & Waugh, W. (2006). Critical thinking framework for any discipline. *International Journal of Teaching and Learning in Higher Education*, *17*(2), 160-166.

Etemadzadeh, A., Seifi, S., & Far, H. R. (2013). The role of questioning technique in developing thinking skills: The ongoing effect on writing skill.*Procedia-Social and Behavioral Sciences*, *70*, 1024-1031.

Mcdougall, D., & Granby, C. (1996). How expectation of questioning method affects undergraduates' preparation for class. *The Journal of experimental education*, *65*(1), 43-54.

McKeachie, W. J., & Svinicki, M. (2014). *Teaching tips: Strategies, research, and theory for college and university teachers* (14th ed.). Boston: Houghton Mifflin.

Owens, A., & Wex, I. (2010). What are the challenges involved and the strategies employed in teaching Australian law to non-law students from non-English speaking backgrounds and cultures. *Journal of the Australian Law Teachers Association*, *10*(1), 89-98.

Price, K., & Nelson, K. (2013). *Planning effective instruction: Diversity responsive methods and management*. Cengage Learning.

Sardareh, S. A., Saad, M. R. M., Othman, A. J., & Me, R. C. (2014). ESL Teachers' Questioning Technique in an Assessment for Learning Context: Promising or Problematic?. *International Education Studies*, *7*(9), 161-172.

Sharan, S. E. (1994). *Handbook of cooperative learning methods*. Greenwood Press/Greenwood Publishing

Group.